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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/723,957 | 11/24/2003 | Jonah Harley | 10030477-1 | 9406 |

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AGILENT TECHNOLOGIES, INC.
Intellectual Property Administration
Legal Department, DL429
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

WU, XIAO MIN

ART UNIT PAPER NUMBER

2629

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,957

Applicant(s)

HARLEY ET AL.

Examiner

XIAO M. WU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/8/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7, 9-13, 17-18, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobachi et al. (US Patent No. 6,326,948).

As to claims 1, 17, Kobachi discloses a pointing device, comprising: a surface having a puck field of motion defined thereon (4, Fig. 1); a moveable puck (1, Fig. 1) comprising a user sensor (e.g. force sensor 40 shown in Fig. 31 for detecting the force in Z-direction pressed by the user) that detects an interaction between a user and said puck, said puck being confined to move within said puck field of motion (see Fig. 1), and a position detector (S, Fig. 1) that measures the position of said puck in said puck field of motion.

As to claim 2, Kobachi discloses a restoring mechanism (e.g. spring 2) that returns said puck to a predetermined area in said puck field of motion.

As to claims 3, 18, Kobachi discloses the restoring mechanism comprises a spring connected to said puck (see Fig. 27).

As to claims 5, 20, Kobachi discloses the spring comprises an arcuate spring (2, Fig. 27).

As to claims 6, 21, Kobachi discloses the arcuate spring comprises a planar spiral spring (2, Fig. 27).

As to claims 7, 22, it is inherent spring also applies a force that dampens oscillations in

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said puck position when said puck returns to said predetermined area in said puck field of motion (e.g. expand and shrink).

As to claim 9, Kobachi discloses the user sensor comprises a force sensor (40, Fig. 31) that generates a first signal indicative of a first predetermined force applied to said puck by said user (e.g. two dimensional movement when the force is less than 50gf, see Fig. 32A, 32B and see col. 18, lines 12-19).

As to claim 10, Kobachi discloses the force sensor further generates a second signal indicating that is greater than a second predetermined force level is being applied to said puck by said user (e.g. z-dimensional operation when the force is larger than 50gf; see col. 18, lines 12-19).

As to claim 11, Kobachi discloses the user sensor (40) generates a signal indicative of the magnitude of a force applied to said puck by said user (see Fig. 32B).

As to claim 12, Kobachi discloses a controller for causing a cursor to move on a display in response to said puck moving in said puck field of motion when said sensor senses said interaction between said user and said puck, the magnitude and direction of motion of said cursor being determined by the magnitude and direction of motion of said puck in said puck field of motion (see col. 18, lines 27-39).

As to claim 13, Kobachi discloses that it is not cause the cursor to move in response to said puck moving when said sensor does not sense said interaction between said user and said puck (see col. 18, lines 12-14).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobachi et al. (US Patent No. 6,326,948) in view of Arita et al. (US Patent No. 5,504,502).

As to claim 4 and 19, it is noted that Kobachi does not specifically disclose that the restoring mechanism comprising a first magnet on the puck and a second magnet that is fixed with respect to the puck field of motion. Arita is cited to teach a pointing device similar to Kobachi. Arita further discloses that the restoring mechanism comprising a first magnet (18, Fig. 7A, 8A) on the puck and a second magnet (14, 14', Fig. 7A, 8A) that is fixed with respect to the puck field of motion. It would have been obvious to one of ordinary skill in the art to have modified Kobachi with the features of the magnets as taught by Arita because Arita provides that

the manually movable actuating member is realized by a plate like slide member slidably supported on the support (see col. 2, lines 38-40).

6. Claims 8, 14-16 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobachi et al. (US Patent No. 6,326,948) in view of Sherriff (GB 2 247 938).

As to claims 8, 14-16 and 23-24, Kobachi discloses a pointing device comprising: a surface (4, Fig. 1) having a puck field of motion defined thereon, moveable puck (1, Fig. 1) confined to move within said puck field of motion, and a position detector S, Fig. 1) that measures the position of said puck in said puck in said field of motion. It is noted that Kobachi discloses that the position detector (S, Fig. 1) is a light sensing device. Kobachi further discloses that it is known in the art that a capacitive system is used for the pointing device. However, Kobachi does not specifically disclose the capacitive system comprising two electrode and the position is measured by the capacitance between pairs of the surface electrodes. Sherriff is cited to teach position detector which comprises pairs of surface electrodes (17, 18, Fig. 3) and the position is detected by measuring the capacitance of the pairs of electrodes. It would have been obvious to one of ordinary skill in the art to have modified the position sensor of Kobachi with the features of the capacitance detection sensor as taught by Sherriff because the optical position sensor and the capacitive position sensor are alternative for each other.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US Patents 4,670,743, 5,056,146, 5,086,296, 5,704,037, 5,808,603, 5,956,016, 6256,012 are cited to teach a cursor control device.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.

May 23, 2006


XIAO M. WU
Primary Examiner
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